

6



PCT

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/926,375A

DATE: 12/16/2002 P.6
TIME: 13:34:13

Input Set : A:\SEQUENCE.txt

Output Set: N:\CRF4\12162002\I926375A.raw

```

3 <110> APPLICANT: Forsberg, Cecil W.
4   Golovan, Serguei
5   Phillips, John P.
8 <120> TITLE OF INVENTION: Transgenic Animals Expressing Salivary Proteins
11 <130> FILE REFERENCE: 6580-270
14 <140> CURRENT APPLICATION NUMBER: US 09/926,375A
15 <141> CURRENT FILING DATE: 2000-04-20
18 <150> PRIOR APPLICATION NUMBER: US 60/130,508
19 <151> PRIOR FILING DATE: 1999-04-23
22 <160> NUMBER OF SEQ ID NOS: 7
25 <170> SOFTWARE: PatentIn version 3.1
28 <210> SEQ ID NO: 1
29 <211> LENGTH: 20623
30 <212> TYPE: DNA
31 <213> ORGANISM: Artificial Sequence
33 <220> FEATURE:
34 <223> OTHER INFORMATION: Lama2/APPA plasmid
36 <220> FEATURE:
37 <221> NAME/KEY: misc feature
38 <222> LOCATION: (11392)..(11392)
39 <223> OTHER INFORMATION: n is any nucleic acid
41 <400> SEQUENCE: 1
42 tcgagagtat ctttgtcagc tgtgcctcca acaaaggggt actgttgccc acatagaaag      60
44 atctaaacta attaatat cctcaccgcg caaatcttct agtcactaag ttagcacgat      120
46 tgttgaacaa gttctccaaa ggagagatac agatgagtgc gtatagggtg gacctggctg      180
48 ctgaggagac acctgcatct gactaagaag agccacggtg ttagttgaat ggtgtggagt      240
50 aggggtggttc tgtgggacag tagaaaaatcg agaggcatgt gccgtttagt gaactgatgg      300
52 aagctacccc aaacgacaga gattgtcagt caggccaatc cgttttcgagt ttgatgggca      360
54 gccggacagt gagacagaca cacctactca gttggaggaa ggatgagaac aatggccagc      420
56 agggattgag agaccctgac aggcgcaagg ccctaacaca cacacctacc acctcacttg      480
58 acaaagctgc caaagaccaa agacttgctt tccattagaa atgacagctg gcttgaccgc      540
60 acagcataat aagcagagtg tactctgatt ggagaacttt aatgtgtttc attcagtatt      600
62 ataaaaggac agtattacag attttgttgt acactgctgt tacatgtgtgg gcagtgtgtc      660
64 tttaagtagg gtaaaagtact ctttaaaaaat gggctctaga tattttttcc tttaactcaa      720
66 gtctcttact gtttaaatga tttttatttt gtttaatatg gaggaataag aagcgtaaat      780
68 ggacaatata tatttagaga aagatggtta gctgtcagaa aaatatgcaa atcaaaatca      840
70 caccaagact gcagcacacc cctgtcagat ggctgtgacg aagaaaataa atgacaatga      900
72 gtgggtggtga agatgtacta aagggaacaa cacacacaca cacacacaca cacacacaca      960
74 cacactggag caaccactgt ggaaatcagt atgaatggtc ctcaaaaacc tgaagataga     1020
76 gcggggcggtg gtggcataca cttttatttc cagcactggg gaggcagagg caggtggatc     1080
78 tctgagttcc aggccagcct ggtctatagc acaggttcta ggacagccag ggctacacag     1140
80 aaaaaccctg ccttgattaa accaaaccaa accaaaccaa accaaaccaa accaaaccaa     1200
82 accaaaccaa accaaaccag accaaaccaa aacctgaag atagaacttc agtattccat     1260

```

RAW SEQUENCE LISTING

DATE: 12/16/2002

PATENT APPLICATION: US/09/926,375A

TIME: 13:34:13

Input Set : A:\SEQUENCE.txt

Output Set: N:\CRF4\12162002\I926375A.raw

```

84 tcctagatat atacccaatg gagactaagt cagcaagaca cctgcacagc catgttcact 1320
86 actacactgt tcaccacagc caggctgtgg aaccagcctg agtgtccatg ataaatgaat 1380
88 ggataggtaa ctttcaagggt aaatggactc tgctgtgtac atgcctcaca ttctgtttat 1440
90 tcatttttct ttatgagggtg tccattcagg agtcacatgg tagttctatt ttcagtcttc 1500
92 tgaagatact acactgggtcc ccacagttta cacttttatc agcagtgaat aagggttcct 1560
94 ctatccttac catcatttgt tgtaattttt cttgatgacc ctctttctga cagggatagg 1620
96 atgtaatatc agtgtgagga agtacaactt gttttctaag tatttattgg ccccttgcat 1680
98 ttcttctttt gaaaactgtc ggttcctgac atctgctcag gtattcattg gatgttggtt 1740
100 ctttggtggt tgagtttctta tgaattctag atgttaaata cctgcctgtg gttctctccc 1800
102 attctgtagg ctgcctcctc accctggcaa ttgttgtcct tgttttgcag aaacttttga 1860
104 cttcatggaa tctcatttgt cagttttccc tctctgcta tagcctgagc taatgcactg 1920
106 gtttttacag agccctgggtc tatgccttta tctcctctg gcagcttcgg agtttcattt 1980
108 cttacattta gatctttgat ccactttgaa caagttttgg agcaggggtga gagatacgaa 2040
110 tctagttcca ttcttccata tgtgatccta gtttacatag catcgttggt tgaagaggtt 2100
112 ttattttatt tttaaataat gtgtcataaa aaacgaggtg gttgtagcag tgtggatttg 2160
114 tttctttgtc ctttgatcta caggctctgt tttgtgtcag tctcatgatg ttttattgct 2220
116 atggctctgt catacagtct gaggtcaggt attgtgatat accttcagta ttgctccctc 2280
118 agactcaggt ttgctttggc caggagtcac ctactcagt gctcttagag ctcccccagc 2340
120 atgtagctgc tactattctt agttgataaa tcaggaaact ggggctcaga gagattaact 2400
122 gtcttgaact acttctgggg aggtgaaacg tggagacact aaactgtgtt taccctgtac 2460
124 tgctccagta gctgtcgggt gctgggctac agcaaagcac ctatactata tattactcag 2520
126 gaggtggaag aactcagcct cccttggggg tcccaagctc ccaggtgtcc agtcactgct 2580
128 ggaaacctca tggagtctga aaggaagggt tgagggtaca tggggcagcg atgaggagcc 2640
130 tggggctggg atctccaaa cactggata tccagatgcc actgggtcag ggggagttgg 2700
132 gaacagagtt gggatgtcca tggacctgtg acaaggccag ggccaggggg aggataactc 2760
134 tggctttact aatttgcgaa agtccttagc ttagcagcag ttgtctggga gcacagaggg 2820
136 gccttctgta agaggctcag gcagtgcgcg tctgtaggcg aaggctcttct ccatgttccc 2880
138 catggtggtt cttgatgaaa gagacagtcc ttggctccaa actggtttat tgattgttca 2940
140 ttgtggaaaa tgggtgcaca ccaccttctc aggggtggacc agagatcaaa taccttttgc 3000
142 agggaggaat atctgggaag ggacgcttac tggctaaacc ctcagggcct ctagatacat 3060
144 cattagcatg gagaactctg ttctgggcta catgaccaca ggccacattt ccacaagcca 3120
146 catgtgggaa gtgtggcaca tgttctaggc caggaatctg gtaggagagcg tggagccacc 3180
148 taccatccca ggtgggtgcc tgggtgccag ggacctgaa cccgctcaac cttaccaagt 3240
150 ttcttggcag ggtccactgt cctacacaga agctggagga ggtgtgaggg ttgtgtcttt 3300
152 gtggaatgtc ccatgctgct tggggctcag tttctccacc tgtacctcat tggtttgggt 3360
154 ataaaaagtg gggatacttt attattctct gactcgtgcc tgaggaaaaa gcatcgtggc 3420
156 agtccaggaa ccacaccctg aggttcctgc actgaaggga ctccctaagt ctctggagtc 3480
158 tctccccttc acagagctgc caaagtctag gttcttttga ggataacaga gccatgcttg 3540
160 gtaagcagac aacagcattt gtttactcaa ccttcttttg tcagctccct cttcataaac 3600
162 aagttgagac accatgctgg cttgaggaag acttctaaag ccagacaact gtgcaaggaa 3660
164 gaagaagaag gggcaagtgg agttagcctg gatgtagccc tcaaagtctc cagagaccag 3720
166 ccatgaaggc tcaagtggag ggcaagacct gcagcagcca agcatctggc aggagaggat 3780
168 cctgggaacc cctctaccat gacacacatt cttcctgcag gtcacactta ataggccatt 3840
170 tcttatittg atctatcatg gtgttctgtg cgagattaat gaggtgttat gctgcgaaca 3900
172 gaaagttata taaaaacaag tccccccccc ttgtcactgc tgctaagaat gtagcagaaa 3960
174 ttgtctcaag tgtctctcta atcagaaaca ataaaggctc ccttggattc aagccctcca 4020
176 gtttctcctc tcttgtctga gccttggaca cccatacaaa cctcctggat gctacagctc 4080
178 tgggcagaga ctccaagggtg gggagagact gatggtacaa aagcaaaata cttgtttggg 4140
180 ggtacacca ctcctctgcc tgtgtggttc ctgcagtcag tcctgcagac aggccctcag 4200

```

RAW SEQUENCE LISTING

DATE: 12/16/2002

PATENT APPLICATION: US/09/926,375A

TIME: 13:34:13

Input Set : A:\SEQUENCE.txt

Output Set: N:\CRF4\12162002\I926375A.raw

182	tgggtcttcc	atgggcaaca	cgcagaggga	ggcaatggat	gggaataccc	acaccctggg	4260
184	tagtttacct	cggccatgct	ctctgctctt	catccctcct	ctgccctctg	ccacggcttt	4320
186	ctctgcagga	atcatatctt	catattggcc	cacagggtgt	ctcctcacc	tagctatgat	4380
188	gtttacttta	gagtgacctt	agcagggtct	gtgggaatga	gttctagaag	gctcacggag	4440
190	atgctaggga	agaaacgtct	tctaactact	gaggttacta	agttcctggg	ggttgcctct	4500
192	gcctttccct	tgtaaagtc	accttgaagt	tagtgcagaa	gaaatcagag	cccagtcaca	4560
194	gagtaaatat	ggcctgaag	atttcctttg	agtgccaga	atccatgaca	tttcaagagc	4620
196	cctctttgta	ccttaagtca	tttggggttg	tatcttctgc	ttgatgtatg	tgtgtgtgtt	4680
198	tatcaaagag	tgagatgggt	acataagagg	tgctctaaag	gacagagagg	atttgcaatt	4740
200	gtggcatgtg	acatcctcag	gccttgctct	ggtgccagga	ggaactgatg	cagaaaagag	4800
202	taagaggtca	tttctggag	gctgtcacta	tagaggagat	cttacagtgc	attccctcct	4860
204	ccaggccctg	cctgaggata	gacatgtgct	gactgcaact	gaaacagagg	cttgggatgg	4920
206	agagttaggt	tcacagaagg	gaggggtgga	gatggatgct	tgctgggttc	tgggtctcat	4980
208	caccagctcc	tgaccacccg	gtcagcccat	gtgcttattc	catagctttc	ttttgctatg	5040
210	tttactcagt	gtggtgtttg	ttgggaccca	gcagaagcca	gtcccaggct	gacagctgtg	5100
212	gatacacagg	gcagcatgag	ggtcctcagc	ctgaagcagt	caggctggca	gaagagaaa	5160
214	accagcacac	attccttcaa	ccaactatgt	cttgaaaaac	aaacatatta	tatcacatat	5220
216	attgcattta	tgagacagct	aaaaatgtact	cgggtagcat	gactccagg	ggggatatct	5280
218	gcaagtgcc	tgagtggcag	agggacagcc	aatgtgaggc	aagaaggaat	tctgggtcaa	5340
220	cacagcttag	ctccctgggt	ttggttcaaa	ctttgagagt	ttgaccacaa	gcactttatt	5400
222	tttgacatat	ttaaacagag	cacaactttg	ggaaaaagtt	ttcttatgaa	aattatcaca	5460
224	ataaagctta	aggcatgact	acattaaaa	gcctttgcaa	agtatatgtg	ccctcttcca	5520
226	caagaatgg	tctattgact	gagaaataat	gttcaggata	aagatccagg	aagaaaagat	5580
228	cagggataag	taaaatacta	aactcttttg	caaagtacat	agaccctctt	tcataacaat	5640
230	gggttctatt	gactgacaag	cactgctcag	gagttgggaa	agagtctagc	ataagcacga	5700
232	tagcctggag	actctagtga	ggtctagtct	tacagacagc	aaaaatcacc	agggttcaaa	5760
234	ctacattcat	ttccagtttt	ctgatcaggc	acaggatga	atcccttctg	ttgaagagaa	5820
236	aagtccatgt	gtttaaaata	tctggtttct	ccagtgtctat	tagcgagaag	acttgagccc	5880
238	tatacaactc	ccacctggag	tgacatcctg	tcttcatggg	atattacata	cctagacacg	5940
240	ctcatctcac	agacttagga	ctttgtcttc	tgatctccat	ttctgatccc	acttccacct	6000
242	ttgccttgat	agtgtcattt	tcttactgct	cttggtgaca	accatgttat	cctctgtgta	6060
244	tttgagtgtt	accattttca	gatttttacct	gtatgcaaga	tcacacagtc	tttgtctttc	6120
246	tgtctggatg	catgctaata	tctacacaac	aacccttccc	cgtaactcag	atcttccctc	6180
248	attaacacat	acatgggtgct	gaagaggcta	gggagcttcc	cttcagtggg	gagctagctg	6240
250	gctattgggc	ctttttgact	gtccaggaag	gcccccaatt	gctgagacaa	gaacttagat	6300
252	tcttcattat	tgactctaac	tcatgtatca	agcagaagct	aatgaatagt	tatcaacagg	6360
254	atcagagggt	ccagtgtaa	acactttgac	atgaaagaac	ggaggaagga	cagatggatg	6420
256	cataaaagca	ggaccactgc	cccaggaagg	tcctggaaac	tgatgcaggg	caaaggacag	6480
258	gttataaacc	aaatcttagg	gagtcaggaa	gagcacagag	gagctcaacc	aactgaccac	6540
260	tgcttagggg	ctaccaaccc	aatcctccct	gtgggaacag	ctaagctatc	agccaaagggt	6600
262	aataaacagg	caggacctgt	ggatgacatg	gagagcatag	ggacctggg	tccagccttt	6660
264	agcacctgca	ctctcaggat	actccacccat	tgtgtcttag	agagcctagg	gatactgggt	6720
266	ccagcctttg	gtaccttcac	tctcagggtta	ccccatcact	gtgtcttgg	gagcctaggc	6780
268	acctgggtc	cagccttcag	tacctgcgct	ctcaggacac	cccaccattg	tctcttgccc	6840
270	cgtctcttct	tcctcttcct	ccctttcatt	gtctcttctc	tgcttctttc	ttgactctcc	6900
272	tttcccctca	caccctcact	ctagtctctc	ccttccctct	ctgcatcacc	ctattctctc	6960
274	tgtggctcct	ccactttcct	ttatctctca	tgcttctctc	ctccctcaaa	tacttgtcac	7020
276	ccactatact	tcaggggcca	gctctagtga	caaagctgtt	aatagcaaga	ctctcagatc	7080
278	tccaacggct	cagaggagcc	agaccaccca	agaactctct	ccagggtcaa	tttcaggttc	7140

RAW SEQUENCE LISTING

DATE: 12/16/2002

PATENT APPLICATION: US/09/926,375A

TIME: 13:34:13

Input Set : A:\SEQUENCE.txt

Output Set: N:\CRF4\12162002\I926375A.raw

280	cttcgaaagc	tttcagcaaa	tgctcagggg	acatgccact	aacaagaaga	tgcaaattcc	7200
282	agttgagagt	gggaaaggcc	cttgcgtagg	tcccatcttc	caggccaagg	tcagaggggc	7260
284	tctgtgtaat	ccggattgac	agggctcaga	acaatgtttt	gtttttaagg	tttatttatt	7320
286	ttaggtgtta	gtgtctttgc	ttgcatgacc	ttatgtgcat	catgtgtgtg	caggttcctg	7380
288	atgacagtag	aggagggcct	tgaatccctg	gggataggaa	gttacaggaa	attataagct	7440
290	gctttgtggg	tcttctagct	ttcccaacag	aagtgaatgc	tcttcaccac	tgagccatct	7500
292	ctctaggccc	aagagacatt	gctttatgga	tataattgtg	tgtgtgtgtc	aacattgagg	7560
294	aaaggggaaat	aaaaaaaaaa	cttcagccgc	taaggttgta	cagtttctact	aattgctact	7620
296	tttagttgtg	ataaaatggc	aggtgcttca	acattttatat	atacaaaaaac	ttccctgctg	7680
298	gtggttcaac	tgtgagaact	ggggtaagt	ggtgagttct	ctttttctgt	ctctgtctct	7740
300	gtctctctcc	ttccattctt	tcttaaagga	aataaacatt	gcagctgggt	tatagctcat	7800
302	caatatggaa	gttacagaag	tgaaaaaagg	cattgccttg	gtgggtgggt	ttaccagctg	7860
304	atttttggtt	gtcctgcaag	gaggtctggg	gactggctgc	tctgtctctg	tctgtatgag	7920
306	tgaggggaagt	ctggggagca	gattccctaa	ccttcagcct	ggcctgggtc	ctgagtgaac	7980
308	ccagcctctc	tggctctagt	agctttttcc	aaacaggaat	ctgagtgggt	acagggaaca	8040
310	agtaccagcc	cattgcttaa	gtgccagggt	tagtgagggc	aggaagctgc	catagctggg	8100
312	attagtagtt	gtattggatg	taggaagtcc	tatcctggga	cagctaatcc	ttaatgcttc	8160
314	actggagatt	ttcaatgaga	aatttatccc	acggcccata	tggccccatc	cttttgtctc	8220
316	caacagccaa	gtattttcca	ttagaggaga	cttctgttac	acttgatgga	tgctcattcc	8280
318	aagtgactt	ggggcagtca	gtacagactt	gggatgacct	ctgacagcct	aacctctccc	8340
320	caacaagggc	cctctatgtt	tgctatgtaa	tgtaatgtca	gacattgtca	ggagtgtccg	8400
322	cagcacagcc	tgcccagtgt	gagggctctc	ataggtttcc	cactgtctta	tctacacagg	8460
324	gataacgagg	aggtaaagctg	cagttcccag	tctcacttca	cagaggaaga	gataaccca	8520
326	tcccaggtca	tgtagccagc	agtggaaaga	atgaggattt	gaactcaggt	cttccaagtc	8580
328	ccattgatag	catctcctca	caagtcctt	gccaccctca	cgatgcctta	gacacttgcc	8640
330	tgccctttat	actaaggaga	tgcaaggata	aggggtttac	ccatgtagca	gctgaggcag	8700
332	ctggggatag	ataccagcag	caggcctgat	gtcaccactc	taactccagc	atccccagtc	8760
334	tgtgttctctg	gagtgtgaaa	atccctactt	aacaagattg	tgcaacagtc	cttggctctg	8820
336	tgacccatag	ctggaacacg	gattctcatt	gatttgtgga	acatggtggc	agccagccaa	8880
338	aaagaggggc	tgcatacaga	agacacgtgt	ggcaaggcca	cagcagactc	tgactacctt	8940
340	agcttacaga	attacaaggt	cataatgtcc	tctgctttgg	tcacctcatg	ttaaggacag	9000
342	gccctaata	agatggggca	gaagactgaa	ggaatggcca	accaataaact	ggcccaactt	9060
344	gagaccatc	ctacaggcaa	gcatacaatt	ctgacactac	taatgatact	ctgttatgct	9120
346	tgagacaga	agcctagcat	aactatcctc	cgagaggtcc	acccagcaac	tgactgaaac	9180
348	agaaaaagat	atccacaggc	aaacagtgga	tggaggtcag	ggactattat	gggagagctg	9240
350	tgggaaggat	taaaaaccct	gaaggggata	ggaacccac	aggaagacca	acagagtcaa	9300
352	ctaagagacc	tgtgggagct	ctcagagact	gagccaccaa	ccaaagagca	tacacaggcc	9360
354	ggtccgaggc	acctggcacg	tgtgaagcag	acatgcagct	cagtctccat	gtaggtcctc	9420
356	caataagcgg	tagcctgact	gcagtatcca	atcccaaca	gggctgcata	gtctggcctc	9480
358	agtgggggag	gatgccctga	atcctgcaga	gacttgatga	gtggagagct	atccaggggg	9540
360	aaaccaccct	ctctgagaag	ggaatgggga	tgggggaggg	actctgtgaa	gaggggacaa	9600
362	ggacaaacaa	gaacctcaaa	taggtcaggc	cctaaaggct	tgctaagtag	cagtggccca	9660
364	gctctgtcct	gttctctcagc	ccaaggctca	gctcccacct	gtttctgtgt	ttttctggct	9720
366	tttcatgggc	ctaggacttg	gtgaccagtt	caaacaatgg	ggcctgtgga	agacacaata	9780
368	tacaagacta	gggacattcc	tgttctgctg	actatccata	gcctgatgta	ggtggaagga	9840
370	cccaatcact	ggatttctac	ccttgacaaa	ccttgacagc	tgagggcctc	tcagaaacct	9900
372	atttcttcca	ctgaaaaatg	agactctcaa	atgaacgtcg	tgacaatcat	caggcttatt	9960
374	aaagaggtgt	atctaacctg	aatggcaagc	agacagcagg	caaatgtctg	tatcaacctc	10020
376	taggaaggac	aagaactgct	cactgctgcc	ccccaggagg	ccatttgctg	aaacagctgc	10080

RAW SEQUENCE LISTING

DATE: 12/16/2002

PATENT APPLICATION: US/09/926,375A

TIME: 13:34:13

Input Set : A:\SEQUENCE.txt

Output Set: N:\CRF4\12162002\I926375A.raw

```

378 tctcctgctg gtgcacaggc cctgccttct cattgcagcc acagcccctt cctgtctgaa 10140
380 cctcctgtca ggtcactggg aaacagatca agatggaaca ggacagctcc tgatggtaaa 10200
382 taaaaaacag tggcatggc tattcatagg ggtttatgct tcttcagtcc acactgtgaa 10260
384 gagctgtggg catgaaccac agtggtcgag gtagagttgg ggttctgaaa ttcacagtgg 10320
386 ggtgagctca gtaaatgtga gctggaggtc actcgtgaga cacacagtcc tgctgcttct 10380
388 gttcccaata tctgaggag acgacacatc tactttgttc agaggccaca gtctagtgtg 10440
390 cctgagagtt accagtttct tatttgtgtg tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg 10500
392 tgttggtcgt gtgtgagtg aggtgcacat atgatagcgt acacgttgag gtcagaggat 10560
394 aactatcagg cggtgtcccc tctactttt cctcggactc tggagaacaa acatgggtcc 10620
396 ttattccagg ggagcaagtc gctgttggtc gacacatctt gctcacatac attttacct 10680
398 gacaatggag cctccatcag agtattactt tagctcctca ccgatggcaa tgcaccacct 10740
400 ctctacccac ataggagttg ggtctccaca cacccccaca cccccttcac caaaacgttt 10800
402 tcagttactt tatctggtaa agttcatcag agaatgaagc cagtattaag aacatggaat 10860
404 catttgggaa cctggatcta gcaatacccc accctagatg gagttgctga gttttcacct 10920
406 cagattataa ttcccccta gcttctatgg tttattctga aaccagggga actcgattcc 10980
408 tccctttgga ccacagacat cctggcttgt gaattcacat gtcactact gctaatacat 11040
410 tggtagtatg tggctcacag agacacacta cagtcatggc caatgtcaag gtaggacaga 11100
412 tgtgaatcat tccccagtc ctgctgtttt catgactaac cctcctcagc acagtgacca 11160
414 tgaacctact tttccccctc ttttattttt agaattgctg gaattttcta ttttgagaaa 11220
416 taatagcctt gggcagcatt aaacaaaatc atctagaaa agctggtttaaa atacagatgg 11280
418 ttgagtcagt gaaagagtga ggaatgtcat tattggcccc tcacagaggc tggctcactc 11340
W--> 420 cagcagaggt ggttgaagct cttggacacg ggtcaggtgc ataggaaagg tngtctggga 11400
422 cactgagaac cacaattgaa caaacagaac tgttggtttt ttttttttta aatgagttct 11460
424 caaaaaatga ctggctagct taggcaaaata cttcgagcca acccaacaga acattcttcc 11520
426 attgattcat tctggatctt ctttctagac aatactgaac tgacccttg ttggcagttc 11580
428 caagtttgac aacatagggc tttgaacttg gcacaaggtc catcactgtc acccaagcat 11640
430 cctgggtgac ctttgggttg gaatatcttg gctaacctta gatattttct ttggagtatc 11700
432 tttagaacat ccaggaaata gggcttgatt ctcatcctgg gaccacaata taagtcaccc 11760
434 tagaatccca ggagatcgtg cagagaaaca aggatctctc tcgtgtgcat ccttcttcaa 11820
436 agcagtgagt agtgactcca ctaaactgag ttcccatctg agagtcacac ggaggctttg 11880
438 gggcaagaag cagagggaag gcactgtttg tgttggtaaa gttttgactc taacaaattt 11940
440 gaagacatag atgacattgt gtcagactaa caacaaccta gactcatgtg ggttctgttt 12000
442 agggatcaga ttttattcat caatgacttg tcttagtgta tagagaaagg cttcctactg 12060
444 gagtgtaggc tcaataatga cagaagagat agctatttcc cctagggact gtgctgtctcc 12120
446 aagtttggtg gagaaaggca gtggggaacc tagatgtgct ctctggggag ggggtctgaa 12180
448 gctggcttca tagaagggtg gaagttttgc tgaaacatct aaacagaatt atagcttagg 12240
450 aaagtgaagc ggcaaggcag ggaatgtgtt gcatatgtat atgtacatga atatattatg 12300
452 ttatagatac acacacattt gaacctcatt tgcagatgac agaaaatagg ttattttgcc 12360
454 tctcttaact gctaagcaca atgacttcca gttccatcca tttcctgaaa tgccacaatt 12420
456 tcatttttca tctgtggtga ataaaattcc attgcagact gggccctact tcatccactc 12480
458 ctgagggcag gcatatcccc tggctccatt tcttacctat tgtgaagaga agtgcaactg 12540
460 tcttggtgaa aggcaagcgt gagagaggca ggcactaatt gtgggttttt gtttcttctt 12600
462 cctgctatga ctctccattt gtcagaacca aagatcgata aaagccgcca ccatgaaagc 12660
464 catcttaatc ccatttttat ctcttctgat tccgttaacc ccgcaatctg cattcgctca 12720
466 gagtgaagc gagctgaagc tggaaagtgt ggtgattgtc agtcgtcatg gtgtgcgtgc 12780
468 tccaaccaag gccacgcaac tgatgcagga tgtcacccca gacgcatggc caacctggcc 12840
470 ggtaaaactg ggttggtgta caccgcgcgg tggtagagcta atcgctatc tcggacatta 12900
472 ccaacgcccag cgtctggtag ccgacggatt gctggcgaaa aagggtgcc cgcagtctgg 12960
474 tcaggtcgcg attattgctg atgtcgacga gcgtaccctg aaaacaggcg aagccttcgc 13020

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/926,375A

DATE: 12/16/2002
TIME: 13:34:14

Input Set : A:\SEQUENCE.txt
Output Set: N:\CRF4\12162002\I926375A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 11392

Seq#:6; N Pos. 255

Seq#:7; N Pos. 11392

VERIFICATION SUMMARY

DATE: 12/16/2002

PATENT APPLICATION: US/09/926,375A

TIME: 13:34:14

Input Set : A:\SEQUENCE.txt

Output Set: N:\CRF4\12162002\I926375A.raw

L:420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:11340
L:1473 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:240
L:2040 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:11340